Exxon Mobil Corporation
2775 Gulf States Road
Beaumont, Texas 77701

ExxonMobil

February 24, 2022

Director, Air Enforcement Division
Office of Civil Enforcement
U.S. Environmental Protection Agency
Mail Code 2242-A
1200 Pennsylvania Ave., N.W.
William Jefferson Clinton Building
Room 1119
Washington, D.C. 20460-0001
CERTIFIED MAIL NO. 7020 2450 0000 4592 8008
RETURN RECEIPT REQUESTED

Associate Director
Air, Toxics, and Inspections Coordination Branch (6 EN-A)
U.S. EPA, Region 6
1445 Ross Avenue
Dallas, Texas 75202
CERTIFIED MAIL NO. 7020 2450 0000 4592 8022
RETURN RECEIPT REQUESTED

RE: Consent Decree, *United States vs. Exxon Mobil Corp.*, Civil Action No. 4:17-cv-3302 (S.D. Tex.), Semi-Annual Reporting Requirements - ExxonMobil Beaumont Chemical Plant

To Whom It May Concern:

Pursuant to Section X, Paragraphs 66-73 of above referenced Consent Decree, Exxon Mobil Corporation (ExxonMobil) submits this Semi-Annual Report (SAR) covering the period of July 1, 2021 through December 31, 2021.

Certification Statement
Per Consent Decree Paragraph 71:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions about this SAR or require any additional information, please e-mail Beaumont.Env.Admin@exxonmobil.com or contact Allana Sager at (409) 240-3317.

Sincerely,

Jennifer A. Dunphy
Beaumont Chemical Plant Manager

ExxonMobil Beaumont Chemical Plant

Attachments

cc: EES Case Management Unit
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611
Washington, D.C. 20044-7611
Re: DJ # 90-5-2-1-10128 and 10128/1
CERTIFIED MAIL NO. 7020 2450 0000 4592 8015
RETURN RECEIPT REQUESTED

United States Attorney
Southern District of Texas
Andrew A. Bobb
Assistant U.S. Attorney
1000 Louisiana St., Suite 2300
Houston, TX 77002
CERTIFIED MAIL NO. 7020 2450 0000 4592 7995
RETURN RECEIPT REQUESTED

parrish.robert@epa.gov
foley.patrick@epa.gov
osbourne.margaret@epa.gov
eescdcopy.enrd@usdoj.gov **(Re: DJ # 90-5-2-1-10128 and 10128/1)**

ExxonMobil

Beaumont Chemical Plant

Beaumont, Texas

SEMI-ANNUAL REPORT
PURSUANT TO CONSENT DECREE,
UNITED STATES, ET AL V. EXXON MOBIL CORPORATION AND EXXONMOBIL OIL CORPORATION,
CIVIL ACTION NO. 4:17-cv-3302 (S.D. TX)

July 1, 2021 – December 31, 2021

2775 Gulf States Road

Beaumont, Texas

TABLE OF CONTENTS

SECTION 1 STATUS OF CONSENT DECREE SECTION V COMPLIANCE REQUIREMENTS

This progress report provides the status of implementation of Consent Decree requirements that, during the reporting period, require the ExxonMobil Beaumont Chemical Plant to undertake a specific action or make a submittal to an agency; or otherwise require the ExxonMobil Beaumont Chemical Plant to take specific steps to implement new obligations, including new control or emissions requirements, new monitoring requirements, or institution of new procedures. Once the ExxonMobil Beaumont Chemical Plant has reported a requirement as implemented, it will not appear in subsequent progress reports under this subparagraph.

Consent Decree Paragraph 66a. – b.

a. A description of the status of work performed and progress made toward implementing all requirements of Consent Decree Section V (Compliance Requirements) at the Covered Facilities. This topic should describe any major milestones completed and remaining to be completed;

ExxonMobil Beaumont Chemical Plant has completed the following work required to meet the requirements of Consent Decree Section V Compliance Requirements. Major milestones completed for this reporting period are in Table 1.1.

TABLE 1.1 Major Milestones Completed For This Reporting Period

Applicability	Description of Work Completed During This Reporting Period	Completion Date
None	None	N/A

There is no remaining work to be completed by the ExxonMobil Beaumont Chemical Plant to meet the requirements of Consent Decree Section V Compliance Requirements, as noted by "None" in Table 1.2.

TABLE 1.2 Status of Remaining Work to be Completed

Applicability	Remaining Work To Be Completed	Anticipated Completion Date
None	None	N/A

b. A description of any problems encountered or anticipated in meeting the requirements in Consent Decree Section V (Compliance Requirements) at the Covered Facilities, together with implemented or proposed solutions;

ExxonMobil Beaumont Chemical Plant has not encountered nor anticipates problems in meeting the requirements of Consent Decree Section V Compliance Requirements as indicated by "None" in Table 1.3.

TABLE 1.3 Encountered or Anticipated Problems in Work To be Completed

Covered Flare	Encountered or Anticipated Problem(s)	Proposed or Implemented Solution(s)
None	None	None

SECTION 2 STATUS OF CONSENT DECREE SECTION V REPORTING REQUIREMENTS

Below is a summary of the status of reports as required under Consent Decree Section V.

Flare Data and Monitoring Systems and Protocol Report
Requirement: CD Paragraph 18
Description: For each Covered Flare, by no later than 365 Days after the Effective Date, the Defendants must submit a report, consistent with the requirements in Appendix 1.5, to EPA that includes the following:

a. The information, diagrams, and drawings specified in Paragraphs 1–7 of Appendix 1.5;
b. A detailed description of each instrument and piece of monitoring equipment, including the specific model and manufacturer, that the Defendants have installed or will install in compliance with Paragraphs 20–24 of this Consent Decree (Paragraphs 8–9 of Appendix 1.5); and
c. A narrative description of the monitoring methods and calculations that the Defendants will use to comply with the requirements of Paragraph 43 (Paragraph 10 of Appendix 1.5).

Status: The Flare Data and Monitoring Systems and Protocol Report was submitted by the ExxonMobil Beaumont Chemical Plant on June 6, 2019.

Initial Waste Gas Minimization Plan ("Initial WGMP")
Requirement: CD Paragraph 29
Description: By no later than 365 Days after the Effective Date, for each Covered Flare, the Defendants must submit to EPA an Initial Waste Gas Minimization Plan that discusses and evaluates flaring Prevention Measures on both a facility-wide and Covered Flare-specific basis for each Covered Facility.

Status: The Initial Waste Gas Minimization Plan was submitted by the ExxonMobil Beaumont Chemical Plant on June 6, 2019.

First Updated Waste Gas Minimization Plan ("First Updated WGMP")
Requirement: CD Paragraph 30
Description: By no later than 730 Days after the Effective Date, the Defendants must submit to EPA a First Updated WGMP that updates, if and as necessary, the information, diagrams, and drawings required in the Flare Data and Monitoring Systems and Protocol Report required by Paragraph 18 and the information required in sub-Paragraphs 29.a–29.e for the 12-month period after the period covered by the Initial Waste Gas Minimization Plan.

Status: The First Updated Waste Gas Minimization Plan was submitted by the ExxonMobil Beaumont Chemical Plant on June 5, 2020.

SECTION 3 STATUS OF PERMITTING ACTIVITY

Consent Decree Paragraph 66c.

c. A description of the status of any permit applications, including a summary of all permitting activity, pertaining to compliance with this Consent Decree;

Status: ExxonMobil Beaumont Chemical Plant received an approved alteration from TCEQ's Air Permit Division for existing NSR Permit 83702 on September 13, 2019. The altered NSR Permit incorporates the requirements listed in the Consent Decree sub-Paragraph 60.c. such that the requirements (i) become and remain "applicable requirements" as that term is defined in 40 C.F.R §70.2 and (ii) survive the termination of the Consent Decree.

The ExxonMobil Beaumont Chemical Plant submitted a permit application on June 5, 2021 to TCEQ's Air Permit Division for Title V Permit O2292. The application requested to incorporate the requirements listed in the Consent Decree sub-Paragraph 60.c into Title V O2292. In accordance with Consent Decree sub-Paragraph 60.b., the permit application was submitted no later than three years after the Effective Date or one year after the respective deadline for the Compliance Requirements listed in sub-Paragraph 60.c.

Consent Decree Paragraph 66d.

d. A copy of any reports that were submitted only to LDEQ and that pertain to compliance with this Consent Decree.

Status: This section does not apply because the ExxonMobil Beaumont Chemical Plant is located in the State of Texas and therefore does not submit reports to LDEQ.

Consent Decree Paragraph 66e.

e. A description of the Defendants' progress in satisfying its obligations in connection with the SEP(s) under Section VI including, at a minimum, a narrative description of activities undertaken; status of any construction or compliance measures, including the completion of any milestones set forth in the SEP Work Plan (attached as Appendix 2.1), and a summary of costs incurred since the previous report;

ExxonMobil Beaumont Chemical Plant is not stewarding the Federal Supplemental Environmental Project (SEP) or Louisiana Beneficial Environmental Projects (BEPs).

The Louisiana Beneficial Environmental Projects (BEPs) have been completed. Refer to the 2H2019 Semi-Annual Report submitted by the ExxonMobil Baton Rouge Chemical Plant on February 26, 2020 for supporting information and documentation.

The Baytown Area Phyto-Pollution Reduction Supplemental Environmental Project (SEP) has been completed. Refer to supporting information and documentation that was submitted November 17, 2020 in the ExxonMobil Baton Rouge Plastics Plant Request for Termination and that will be submitted in the 2H2020 ExxonMobil Baytown Chemical Plant Semi-Annual Report.

SECTION 6 UPDATED WASTE GAS MINIMIZATION PLAN (WGMP)

Consent Decree Paragraph 66.f.

f. Any updated WGMP for the Covered Facilities that is required to be submitted by Paragraph 31.

Subsequent Updates to WGMPs ("Subsequently Updated WGMP")
Requirement: CD Paragraph 31
On an annual basis after submitting the First Updated WGMP until termination of the Decree, the Defendants must submit an updated WGMP for a Covered Facility as part of the Semi-Annual Report required by Section IX (Reporting Requirements) if, at that Covered Facility, the Defendants: a) commence operation of a Newly Installed Covered Flare or permanently remove a Covered Flare from service, b) connect a new Waste Gas stream to a Covered Flare, c) intentionally modify the Baseload Waste Gas Flow Rate to a Covered Flare, d) install additional FGRS, or e) change the design of a Covered Flare. Each update must update, if and as necessary, the information required in sub-Paragraphs 29.a.i - 29.a.iii. Each update must update, if and as necessary, the information required in sub-Paragraphs 30.a and 30.b. To the extent the
Defendants propose to extend any schedule set forth in a previous WGMP for any of the Covered Facilities, the Defendants may do so only with good cause, the determination of which is subject to Section XII (Dispute Resolution).

Status: The Initial Waste Gas Minimization Plan was submitted on June 6, 2019. The First Updated Waste Gas Minimization Plan was submitted by the ExxonMobil Beaumont Chemical Plant on June 5, 2020. Second update was made on August 30, 2021. Subsequent updates, if necessary, will be made on an annual basis as part of the Semi-Annual Report.

SECTION 7 SUMMARY OF INTERNAL FLARING INCIDENT REPORTS

Consent Decree Paragraph 66g.

g. Any summary of internal flaring incident reports as required by Paragraph 34.

Submitting Summary of Internal Flaring Incident Reports
Requirement: CD Paragraph 34b.
In each Semi-Annual Report due under Section IX (Reporting Requirements), the Defendants must include a summary of the following items for each Reportable Flaring Incident that occurred during the six-month period that the Semi-Annual Report covers:

i. Date;
ii. Duration;
iii. Amount of VOCs and HAPs emitted;
iv. Root cause(s);
v. Corrective action(s) completed;
vi. Corrective action(s) still outstanding; and
vii. An analysis of any trends identified by the Defendants in the number of Reportable Flaring Incidents, the root causes, or the types of corrective action(s).

Status: In accordance with Paragraph 34a. of the Consent Decree, ExxonMobil Beaumont Chemical Plant began internal Reportable Flaring Incident (RFI) reporting and recordkeeping no later than June 6, 2019. A summary of internal RFIs that occurred from July 1, 2021 through December 31, 2021 are provided in Table 7.1.

TABLE 7.1 July 1 – December 31, 2021 Summary of Internal Flaring Incident Reports

Date	Duration (hours)	Amount Emitted	
		VOCs (pounds)	HAPs (pounds)
06/30/2021 08:00 – 07/01/2021 13:20	29.3	237.9	121.3
Covered Flare(s)	Paraxylene		
Root Cause	The root cause of this reportable flaring incident was planned preventative maintenance on the Wharf Thermal Oxidizer (WTO). The Paraxylene Flare is an alternate disposition for Waste Gas that is typically routed to WTO.		
Corrective Action(s) Completed	None – planned maintenance activity using site procedures to minimize flaring		
Corrective Action(s) Still Outstanding	None – planned maintenance activity		

Note: This incident occurred between two semiannual reporting periods and has already been reported in the January 1, 2021 to June 30, 2021 semiannual report submitted August 30, 2021. This incident is being reported again due to the incident ending on July 1, 2021 which is included in the July 1, 2021 to December 31, 2021 semiannual reporting period.

Date	Duration (hours)	Amount Emitted	
		VOCs (pounds)	HAPs (pounds)
07/13/2021 23:49 - 08/04/2021 16:06	280	2,956.5	1,507.6
Covered Flare(s)	Paraxylene		
Root Cause	The root cause of this reportable flaring incident was planned maintenance on the Wharf Combustor (WC). The Paraxylene Flare is an alternate disposition for Waste Gas that is typically routed to WC.		
Corrective Action(s) Completed	None – planned maintenance activity using site procedures to minimize flaring		
Corrective Action(s) Still Outstanding	None – planned maintenance activity		

Date	Duration	Amount Emitted

	(hours)	VOCs (pounds)	HAPs (pounds)
09/02/2021 09:06 - 09/03/2021 17:24	32.3	2,359.1	265.5
Covered Flare(s)	LP East and HP West		
Root Cause	The root cause of this reportable flaring incident was the planned shutdown of Ultra-selective Cracking One Unit to complete the V1 valve I/Ps repair on Ultra-selective Cracking One Process Gas Compressor.		
Corrective Action(s) Completed	Replaced V1 valve actuator and associated instrumentation on Ultra-selective Cracking One Process Gas Compressor.		
Corrective Action(s) Still Outstanding	None – planned maintenance activity		

Date	Duration (hours)	Amount Emitted	
		VOCs (pounds)	HAPs (pounds)
9/20/2021 06:41 -9/24/2021 13:06	103	929.0	473.7
Covered Flare(s)	Paraxylene		
Root Cause	The root cause of this reportable flaring incident was planned maintenance on the Wharf Thermal Oxidizer (WTO). The Paraxylene Flare is an alternate disposition for Waste Gas that is typically routed to WTO.		
Corrective Action(s) Completed	None – planned maintenance activity using site procedures to minimize flaring		
Corrective Action(s) Still Outstanding	None – planned maintenance activity		

Paragraph 43.b.vii. of the Consent Decree requires an analysis of any trends identified in the number of Reportable Flaring Incidents, the root causes, or the types of corrective actions(s).

Status: ExxonMobil Beaumont Chemical Plant reviewed all Recordable Flaring Incidents and did not identify trends in the number of RFIs.

For the trends in root causes or the types of corrective actions, ExxonMobil Beaumont Chemical Plant has had more than one RFI during preventative maintenance on the

Wharf Thermal Oxidizer (WTO), which is a necessary and planned maintenance activity. The Paraxylene Flare is an alternate disposition for Waste Gas that is typically routed to WTO.

Consent Decree Paragraph 66h.

h. A summary of the following, per Covered Flare per Calendar Quarter (hours shall be rounded to the nearest tenth):

(1) The total number of hours of Instrument Downtime claimed pursuant to Paragraph 45, expressed as both an absolute number and a percentage of time the Covered Flare that the instrument/equipment monitors is In Operation and Capable of Receiving Sweep, Supplemental, and/or Waste Gas;

TABLE 8.1 3rd Quarter 2021 Instrument Downtime Summary

Covered Flare	Monitoring System	System Downtime (%)	System Downtime (hours)
Paraxylene	Camera and Recording System	0.0	0.0
Paraxylene	Vent Meter	0.0	0.0
Paraxylene	Analyzer	0.1	1.3
Paraxylene	Steam	0.0	0.0
C&S	Camera and Recording System	0.0	0.0
C&S	5262 Header Vent Meter	0.0	0.0
C&S	5186 Header Vent Meter	0.0	0.0
C&S	5262 Header Analyzer (AT 2645)	0.8	18.5
C&S	5186 Header Analyzer (AT 2640)	0.7	15.8
C&S	Steam (FT 2081)	0.0	0.0
West	Camera and Recording System	0.0	0.0
West	4901 West Header Vent Meter	0.0	0.3
West	4901 East Header Vent Meter	0.0	0.3
West	Tank 97 Header Vent Meter	0.1	1.3
West	Tank 98 Header Vent Meter	0.1	1.3

West	4901 West Header Analyzer	0.7	16.5
West	Tank 97 Header Analyzer	2.2	49.5
West	Tank 98 Header Analyzer	1.2	26.5
West	West SARCO Header Vent Meter	0.0	0.0
East	East SARCO Header Vent Meter	0.0	0.0
West	Steam	0.0	0.0
East	Camera and Recording System	0.0	0.0
East	Tank 2799 Header Analyzer	0.5	11.3
East	Tank 2799 Header Vent Meter	0.0	0.0
East	Steam	0.0	0.0
East	North SARCO Pot Vent Meter	Non applicable[1]	
East	4901 East Header Analyzer	0.7	16.5

[1] North SARCO Pot Vent Meter is no longer utilized and was not utilized during the July 1, 2021 to December 31, 2021 reporting period.

TABLE 8.2 4th Quarter 2021 Instrument Downtime Summary

Covered Flare	Monitoring System	System Downtime (%)	System Downtime (hours)
Paraxylene	Camera and Recording System	0.0	0.0
Paraxylene	Vent Meter	1.5	34.0
Paraxylene	Analyzer	0.3	6.3
Paraxylene	Steam	0.1	2.3
C&S	Camera and Recording System	0.0	0.0
C&S	5262 Header Vent Meter	0.0	1.0
C&S	5186 Header Vent Meter	0.0	0.8
C&S	5262 Header Analyzer (AT 2645)	1.1	23.3
C&S	5186 Header Analyzer (AT 2640)	1.0	21.0

C&S	Steam (FT 2081)	0.1	2.5
West	Camera and Recording System	0.0	0.0
West	4901 West Header Vent Meter	0.1	3.3
West	4901 East Header Vent Meter	0.1	3.3
West	Tank 97 Header Vent Meter	0.1	2.0
West	Tank 98 Header Vent Meter	0.3	6.3
West	4901 West Header Analyzer	0.0	0.0
West	Tank 97 Header Analyzer	1.4	31
West	Tank 98 Header Analyzer	3.7	81.3
West	West SARCO Header Vent Meter	0.0	0.0
West	Steam	0.1	1.8
East	Camera and Recording System	0.0	0.0
East	Tank 2799 Header Analyzer	0.0	0.0
East	Tank 2799 Header Vent Meter	0.0	1.0
East	East SARCO Header Vent Meter	0.0	0.0
East	Steam	0.4	9.3
East	North SARCO Pot Vent Meter	Non applicable[1]	
East	4901 East Header Analyzer	0.0	0.0

[1] North SARCO Pot Vent Meter is no longer utilized and was not utilized during the July 1, 2021 to December 31, 2021 reporting period.

(2) If the total number of hours of Instrument Downtime claimed pursuant to Paragraph 45 exceeds 5% of the time in a Calendar Quarter the Covered Flare affected by the downtime is In Operation, an identification of the periods of downtime by date, time, cause (including Malfunction or maintenance), and, if the cause is asserted to be a Malfunction, the corrective action taken;

Status: A summary of Instrument Downtime pursuant to Paragraph 45 that exceeded 5% of the time the Flare was In Operation from July 1, 2021 through December 31, 2021 are provided in Tables 8.3 - 8.4.

TABLE 8.3 3rd Quarter 2021 Instrument Downtime Identification (if total hours exceeds 5%)

Covered Flare	Monitoring System	Start Date/Time	End Date/Time	Cause	Corrective Action
None	None	None	None	None	None

TABLE 8.4 4th Quarter 2021 Instrument Downtime Identification (if total hours exceeds 5%)

Covered Flare	Monitoring System	Start Date/Time	End Date/Time	Cause	Corrective Action
None	None	None	None	None	None

(3) The total number of hours, expressed as both an absolute number of hours and a percentage of time that the Covered Flare was In Operation, in which the requirements of Paragraphs 43-44 were not applicable because the only gas or gases being vented were Pilot Gas or Purge Gas;

TABLE 8.5 3rd Quarter 2021 Requirements of Paragraphs 43-44 Were Not Applicable Because Only Pilot or Purge Gas Flow

Covered Flare	Time (%)	Time (Hours)
CS	None	None
Paraxylene	None	None
LP East	100	2207.2
HP West	99.1	2189

TABLE 8.6 4th Quarter 2021 Requirements of Paragraphs 43-44 Were Not Applicable Because Only Pilot or Purge Gas Flow

Covered Flare	Time (%)	Time (Hours)
CS	None	None
Paraxylene	None	None

LP East	100	2209
HP West	99.8	2203.7

(4) Exceedances of Combustion Efficiency Standards.

i. The total number of hours, expressed as both an absolute number of hours and a percentage of time the Covered Flare was In Operation, of exceedances of the emissions standards in Paragraphs 43-44; provided however, that if the exceedance of these standards was less than 5% of the time in a Calendar Quarter and was due to one or more of the exceptions set forth in Paragraph 45, the report shall so note; and

Status: Exceedance(s) of combustion efficiency standards due to one or more of the exceptions set forth in Paragraph 45, are provided in Tables 8.7 – 8.8.

TABLE 8.7 3rd Quarter 2021 Exceedance of Standard less than 5% of the Time in this Period and Was Due to Exceptions Set Forth in Paragraph 45

Covered Flare	Total Exceedance of Emissions Standards		Subset of Exceedances Less than 5% of the Time in Calendar Quarter and Due to One of the Exceptions set Forth in Paragraph 45	
	Time (%)	Time (Hours)	Time (%)	Time (Hours)
CS	0.0	0.0	None	None
Paraxylene	0.0	0.0	None	None
LP East	0.0	0.0	None	None
HP West	0.0	0.0	None	None

TABLE 8.8 4th Quarter 2020 Exceedance of Standard less than 5% of the Time in this Period and Was Due to Exceptions Set Forth in Paragraph 45

Covered Flare	Total Exceedance of Emissions Standards	Subset of Exceedances Less than 5% of the Time in Calendar Quarter and Due to One of the Exceptions set Forth in Paragraph 45

	Time (%)	Time (Hours)	Time (%)	Time (Hours)
CS	0.0	0.0	None	None
Paraxylene	0.0	0.0	None	None
LP East	0.0	0.0	None	None
HP West	0.0	0.0	None	None

ii. If the exceedance of the emissions standards in Paragraphs 43-44 was not due to one of the exceptions in Paragraph 45 (Instrument Downtime), or if the exceedance was due to one or more of the exceptions in Paragraph 45 and the total number of hours caused by the exceptions exceeds 5% of the time in a Calendar Quarter that the Covered Flare affected by the Instrument Downtime was In Operation, an identification of each block period that exceeded the standard, by time and date; the cause of the exceedance (including startup, shutdown, maintenance, or Malfunction), and if the cause is asserted to be a Malfunction, an explanation and any corrective actions taken; and

Status: No Covered Flare exceeded combustion efficiency standards, not due to one of the exceptions in Paragraph 45, during the 3rd and 4th Quarters 2021, as noted by "None" in Tables 8.9 – 8.10.

TABLE 8.9 3rd Quarter 2021 Exceedance of Combustion Efficiency Standards

Covered Flare	Combustion Efficiency Standard	Start Date/ Time	End Date/ Time	Cause	Corrective Action
LP East, HP West, CS, and Paraxylene	None	None	None	None	None

TABLE 8.10 4th Quarter 2020 Exceedance of Combustion Efficiency Standards

Covered Flare	Combustion Efficiency Standard	Start Date/ Time	End Date/ Time	Cause	Corrective Action
LP East, HP West,	None	None	None	None	None

CS, and Paraxylene					

(5) Compliance with Compressor Availability Requirements. Sufficient information to document compliance with the FGRS Compressor availability requirements of sub-Paragraph 38.b. For any period of non-compliance, the Defendants must identify the date, cause, and corrective action taken.

Requirements Related to Compressors Being Available for Operation
Requirement: CD Paragraph 38b.ii.

ii. Beaumont Chemical Plant FGRS Operation and Availability.
The Beaumont Chemical Plant FGRS must have one Compressor Available for Operation or in operation 98% of the time and an installed Duplicate Spare Compressor. The periods provided for in sub-Paragraphs 38.c. and 38.d. below may be included in the amount of time that a Compressor is Available for Operation when determining compliance with the requirement to have a Compressor Available for Operation or in operation.

Status: ExxonMobil Beaumont Chemical Plant's Flare Gas Recovery System (FGRS) includes one Compressor and an installed Duplicate Spare Compressor that supports Covered Flares LP East and HP West. Sub-paragraph 38.b.iii. requires the ExxonMobil Beaumont Chemical Plant FGRS to have one Compressor Available for Operation or in operation 98% of the time and an installed Duplicate Spare Compressor. The FGRS Compressor availability calculations, using the methodology provided in CD Paragraph 38.f. "Period to be Used for Computing Percentage of Time", demonstrated that the FGRS met the availability requirements, as shown in Table 8.11.

TABLE 8.11 FGRS Operation and Availability

Covered Flare(s)	FGRS Compressor Count	Actual Minimum Availability (%)[1]	Required Minimum Availability (%)
LP East and HP West	1	100	98

[1] The Actual Minimum Availability provided is the minimum percentage of time that the Beaumont Chemical Plant had the listed number of FGRS Compressors Available for Operation or in operation from July 1, 2021 through December 31, 2021, using the 8,760-hour rolling sum, rolled hourly, as prescribed in CD Paragraph 38.f (i.e., the rolling sum included only the previous 8,760 1-hour periods when Potentially Recoverable Gas was generated during all or part of the hour, provided that the Potentially Recoverable Gas was not generated by flows that could not have been prevented through reasonable planning and were in anticipation of or caused by a natural disaster, act of war or terrorism, or External Utility Loss).

Requirements Related to Compressors Being Available for Operation
Requirement: CD Paragraph 38c.
c. Maintenance of FGRS. Periods of maintenance on and subsequent restart of the Compressor(s) may be included in the amount of time that a Compressor is Available for Operation when determining compliance with the requirement to have a Compressor Available for Operation or in operation; provided however, these periods must not exceed 1,344 hours per Compressor in a five-year rolling sum period, rolled daily. The Defendants must use best efforts to schedule maintenance activities during a turnaround of the process units venting to the Covered Flare(s) served by the applicable FGRS. To the extent it is not practicable to undertake these maintenance activities during a turnaround of these units, the Defendants must use best efforts to minimize the generation of Waste Gas during such periods.

Status: Periods of maintenance on and subsequent restart of the Compressor(s) included in the amount of time that a Compressor is Available for Operation is provided in Table 8.12. These periods do not exceed the 1,344 hours per Compressor in a five-year rolling sum period, rolled daily.

TABLE 8.12 Periods of Maintenance Included in FGRS Operation and Availability

Covered Flare(s)	FGRS Compressor	Date	Hours	Five-year Rolling Sum (hours)
LP East and HP West	C-604A	None	None	0

Requirements Related to Compressors Being Available for Operation – FGRS Shut Down
Requirement: CD Paragraph 38d.
d. FGRS Shut Down. Periods in which the FGRS is shut down (including the subsequent restart) due to operating conditions (such as high temperatures or large quantities of entrained liquid in the Vent Gas) outside the design operating range of the FGRS, including the associated knock-out drum(s), such that the outage is necessary for safety or to preserve the mechanical integrity of the FGRS may be included in the amount of time that a Compressor is Available for Operation when determining compliance with the requirement to have the Compressor Available for Operation or in operation. By no later than 45 Days after any such outage, the Defendants must investigate the root cause and all contributing causes of the outage and must implement, as expeditiously as practicable, corrective action, if any, to prevent a recurrence of the cause(s). In the reports due under Section IX (Reporting Requirements) of this Decree, the Defendants must describe each outage that occurred under

the conditions identified in this sub-Paragraph, including the date, duration, cause(s), corrective action, and the status of the implementation of corrective action.

Status: There were no periods when the FGRS is shut down and/or restarted due to operating conditions outside the design operating range of the FGRS that are also included in FGRS availability as allowed under CD Paragraph 38.d, as noted by "None" in Table 8.13.

TABLE 8.13 FGRS Outages Included in FGRS Availability July 1, 2021 – December 31, 2021

Covered Flare(s)	FGRS Compressor	Outage Start Date	Duration (hours)	Cause(s)	Corrective Action(s) and Status
None	None	None	None	None	None

Status: As per Consent Decree Paragraph 66h(5), there were no periods of FGRS non-compliance, as noted by "None" in Table. 8.14.

TABLE 8.14 FGRS Non-Compliance July 1, 2021 – December 31, 2021

Covered Flare(s)	FGRS Compressor	Start Date	Cause(s)	Corrective Action(s)
None	None	None	None	None

SECTION 9 ADDITIONAL MATTERS

Consent Decree Paragraph 66i.

a. Any additional matters that the Defendants believe should be brought to the attention of EPA, or LDEQ for the Baton Rouge Facilities.

Status: ExxonMobil Beaumont Chemical Plant has no additional matters that need to be reported.

SECTION 10 FENCELINE AIR MONITORING REPORTS

Consent Decree Paragraph 67 a. – b.

The Defendants must submit Fenceline Air Monitoring Reports as part of each Semi-Annual Report. The Fenceline Air Monitoring Reports must contain the following information:

a. In spreadsheet format, the individual sample results for each monitor comprising each Fenceline Monitoring System, each bi-weekly annual average benzene concentration difference value (once annual averages are available), and the corresponding meteorological data for the relevant monitoring periods. The first two columns of each spreadsheet shall be the date and time for each sample taken; and

b. A detailed description of the actions and findings of any root cause analysis and corrective action(s) undertaken pursuant to Paragraph 3(g) of Appendix 2.2, including the known results of the corrective action(s) and the anticipated emissions reductions (in TPY per pollutant).

Status: ExxonMobil Beaumont Chemical Plant began collecting fenceline monitoring data June 4, 2019. The individual sample results from samples retrieved between July 1, 2021 through December 31, 2021 and corresponding meteorological data for the relevant monitoring periods are provided in Attachment A. The bi-weekly annual average benzene concentration difference values began once there were twenty six 14-Day sampling periods, on June 2, 2020. A detailed description of the actions and findings of root cause analysis and corrective action(s) undertaken pursuant to Paragraph3(g) of Appendix 2.2 during this reporting period are listed in Table 10.1.

TABLE 10.1 July 1- December 31, 2021 Summary of Fencline Monitoring Root Cause Analysis and Corrective Action

14 Day Sample Period in Which Initial Exceedance Occurred	Date Exceedance of Annual Average Δc Determined	Anticipated Emission Reductions		
		VOCs, TPY	Benzene, TPY	HAPs, TPY
6/29/2021 – 7/13/2021	7/19/2021	<0.01	<0.01	<0.01
Annual Average Δc	10.1	**Δc for sample period in which initial exceedance occurred**		22.6

Monitoring Station(s) Investigated	Station #4	**Station Result**	23 ug/m^3
Root Cause(s)	The identified root cause, to date, of the exceedance is offsite barge contributions and performing annual hydro-testing as required by US Coast Guard (USCG).		
Corrective Action(s) Undertaken	Performed annual USCG required hydro-testing on Berth 2 piping per written procedures and as expeditiously and safely as possible to reduce emissions – Completed 07/02/2021 Monitor onsite stationary benzene monitors. Method 21 monitoring was done by a specialty third party contractor on the barge hatches and identified elevated readings from multiple hatches. Notification was made to the barge procurement company to contact the third party barge company and to encourage any appropriate corrective actions to be made. - Completed on 07/13/2021		
Known Results of the Corrective Action(s)	Method 21 monitoring was performed to confirm corrective actions were effective.		

14 Day Sample Period in Which Initial Exceedance Occurred	**Date Exceedance of Annual Average Δc Determined**	**Anticipated Emission Reductions**		
		VOCs, TPY	**Benzene, TPY**	**HAPs, TPY**
7/13/2021 – 7/27/2021	8/3/2021	<0.01	<0.01	<0.01
Annual Average Δc	10.3	**Δc for sample period in which initial exceedance occurred**		11.5
Monitoring Station(s) Investigated	Station #4	**Station Result**		12 ug/m^3
Root Cause(s)	The identified root cause, to date, of the exceedance is offsite barge contributions. A potential contributing cause is a leak to atmosphere from a local pressure/vent valve on a nearby storage tank.			
Corrective Action(s) Undertaken	Monitor onsite stationary benzene monitors. Method 21 monitoring was done by a specialty third party contractor on the barge hatches and identified elevated readings from multiple hatches. Notification was made to the barge procurement company to contact the third party barge company and to encourage any appropriate corrective actions to be made– Completed on 07/13/21 (Barge 1) and 7/15/21 (Barge 2) FLIR (IR) monitoring was conducted in a broad area in proximity to Station #4. Monitoring identified a leak to atmosphere from a local pressure/vent valve on a nearby storage tank. Pressure/vent valve was removed from service pending repair. – Completed on 07/21/21			

Known Results of the Corrective Action(s)	Method 21 monitoring was performed to confirm corrective actions were effective.

14 Day Sample Period in Which Initial Exceedance Occurred	**Date Exceedance of Annual Average Δc Determined**	**Anticipated Emission Reductions**		
		VOCs, TPY	**Benzene, TPY**	**HAPs, TPY**
8/10/2021 – 8/24/2021	8/31/2021	<0.01	<0.01	<0.01
Annual Average Δc	10.4	**Δc for sample period in which initial exceedance occurred**		12.5
Monitoring Station(s) Investigated	Station #4	**Station Result**		13 ug/m^3
Root Cause(s)	The identified root cause, to date, of the exceedance is offsite barge contributions and performing annual hydro-testing as required by US Coast Guard (USCG).			
Corrective Action(s) Undertaken	Performed annual USCG required hydro-testing on Berth 3 piping per written procedures and as expeditiously and safely as possible to reduce emissions – Completed 08/12/2021 Performed annual USCG required hydro-testing on Berth 2 and 3 vapor piping per written procedures and as expeditiously and safely as possible to reduce emissions – Completed 08/19/2021 Monitored onsite stationary benzene monitors. Method 21 monitoring was done by a specialty third party contractor on the barge hatches and identified elevated readings from multiple hatches. Notification was made to the barge procurement company to contact the third party barge company and to encourage any appropriate corrective actions to be made– Completed 8/23/2021			
Known Results of the Corrective Action(s)	Method 21 monitoring was performed to confirm corrective actions were effective.			

14 Day Sample Period in Which Initial Exceedance Occurred	**Date Exceedance of Annual Average Δc Determined**	**Anticipated Emission Reductions**		
		VOCs, TPY	**Benzene, TPY**	**HAPs, TPY**
9/7/2021 – 9/21/2021	9/30/2021	<0.01	<0.01	<0.01
Annual Average Δc	10.8	**Δc for sample period in which initial exceedance occurred**		23.3

Monitoring Station(s) Investigated	Station #4	**Station Result**	14 ug/m^3
Root Cause(s)	The identified root cause, to date, of the exceedance is a leak to atmosphere from a local pressure/vacuum valve on berth 1.		
Corrective Action(s) Undertaken	Removed pressure/vacuum vent from service pending repair – Completed on 9/21/2021		
Known Results of the Corrective Action(s)	Removed pressure/vacuum vent from service.		

14 Day Sample Period in Which Initial Exceedance Occurred	**Date Exceedance of Annual Average Δc Determined**	**Anticipated Emission Reductions**		
		VOCs, TPY	**Benzene, TPY**	**HAPs, TPY**
9/7/2021 – 9/21/2021	9/30/2021	<0.01	<0.01	<0.01
Annual Average Δc	10.8	**Δc for sample period in which initial exceedance occurred**		23.3
Monitoring Station(s) Investigated	Station #5	**Station Result**		24 ug/m^3
Root Cause(s)	The identified root cause, to date, of the exceedance is offsite barge contributions.			
Corrective Action(s) Undertaken	Monitor onsite stationary benzene monitors. Monitoring was done by operations on the barge hatches and identified elevated readings from multiple hatches and a pressure relief vent. Notification was made to the barge to encourage any appropriate corrective actions to be made– Completed on 09/13/2021 (Barge 1) and 9/19/2021 (Barge 2)			
Known Results of the Corrective Action(s)	Monitored barge hatches to confirm corrective actions were effective.			

14 Day Sample Period in Which Initial Exceedance Occurred	**Date Exceedance of Annual Average Δc Determined**	**Anticipated Emission Reductions**		
		VOCs, TPY	**Benzene, TPY**	**HAPs, TPY**
9/21/2021 – 10/5/2021	10/13/2021	<0.01	<0.01	<0.01
Annual Average Δc	11.5	**Δc for sample period in which initial exceedance occurred**		24.4
Monitoring Station(s) Investigated	Station #4	**Station Result**		12 ug/m^3
Root Cause(s)	The identified root cause, to date, of the exceedance is offsite barge contributions.			

Corrective Action(s) Undertaken	Monitor onsite stationary benzene monitors. Method 21 monitoring was done by a specialty third party contractor on the barge hatches and identified elevated readings from multiple hatches. Notification was made to the barge procurement company to contact the third party barge company and to encourage any appropriate corrective actions to be made– completed on 09/27/2021
Known Results of the Corrective Action(s)	Method 21 monitoring was performed to confirm corrective actions were effective.

14 Day Sample Period in Which Initial Exceedance Occurred	**Date Exceedance of Annual Average Δc Determined**	**Anticipated Emission Reductions**		
		VOCs, TPY	**Benzene, TPY**	**HAPs, TPY**
9/21/2021 – 10/5/2021	10/26/2021	<0.01	<0.01	<0.01
Annual Average Δc	11.5	**Δc for sample period in which initial exceedance occurred**		24.4
Monitoring Station(s) Investigated	Station #1	**Station Result**		11.5 ug/m^3
Root Cause(s)	While the Company reserves the right to amend if new information becomes available, the root cause of this exceedance is undetermined based on FLIR camera and Method 21 inspection data, review of Beaumont Refinery wharf area maintenance activities for the two week exceedance period, and review of leaks reported to Environmental release reporting advisor for the two week exceedance period.			
Corrective Action(s) Undertaken	No corrective actions identified since root cause of this exceedance is undetermined based on available data.			
Known Results of the Corrective Action(s)	Method 21 monitoring was performed to confirm investigation findings of no known source.			

14 Day Sample Period in Which Initial Exceedance Occurred	**Date Exceedance of Annual Average Δc Determined**	**Anticipated Emission Reductions**		
		VOCs, TPY	**Benzene, TPY**	**HAPs, TPY**
9/21/2021 – 10/5/2021	10/13/2021	<0.01	<0.01	<0.01
Annual Average Δc	11.5	**Δc for sample period in which initial exceedance occurred**		24.4
Monitoring Station(s) Investigated	Station #2	**Station Result**		25 ug/m^3
Root Cause(s)	While the Company reserves the right to amend if new information becomes available, the root cause of this exceedance is undetermined based			

	on FLIR camera and Method 21 inspection data, review of Beaumont Refinery wharf area maintenance activities for the two week exceedance period, and review of leaks reported to Environmental release reporting advisor for the two week exceedance period.
Corrective Action(s) Undertaken	No corrective actions identified since root cause of this exceedance is undetermined based on available data.
Known Results of the Corrective Action(s)	Method 21 monitoring was performed to confirm investigation findings of no known source.

14 Day Sample Period in Which Initial Exceedance Occurred	**Date Exceedance of Annual Average Δc Determined**	**Anticipated Emission Reductions**		
		VOCs, TPY	**Benzene, TPY**	**HAPs, TPY**
10/5/2021 – 10/19/2021	10/26/2021	<0.01	<0.01	<0.01
Annual Average Δc	11.6 ug/m^3	**Δc for sample period in which initial exceedance occurred**		9.4 ug/m^3
Monitoring Station(s) Investigated	Station #4	**Station Result**		10 ug/m^3
Root Cause(s)	The identified root cause, to date, of the exceedance is offsite barge contributions.			
Corrective Action(s) Undertaken	Monitoring was done by a specialty third party contractor and operations on the barge hatches and site glasses which identified elevated readings from hatches and site glass. Notification was made to the barge procurement company to contact the third party barge company and to encourage any appropriate corrective actions to be made. - Completed on 10/08/2021 (Barge 1) and 10/11/2021 (Barge 2)			
Known Results of the Corrective Action(s)	Method 21 monitoring was performed to confirm corrective actions were effective.			

14 Day Sample Period in Which Initial Exceedance Occurred	**Date Exceedance of Annual Average Δc Determined**	**Anticipated Emission Reductions**		
		VOCs, TPY	**Benzene, TPY**	**HAPs, TPY**
10/19/2021 – 11/2/2021	11/9/2021	<0.01	<0.01	<0.01
Annual Average Δc	11.7 ug/m^3	**Δc for sample period in which initial exceedance occurred**		9.2 ug/m^3
Monitoring Station(s) Investigated	Station #4	**Station Result**		9.7 ug/m^3

Root Cause(s)	The identified root cause, to date, of the exceedance is offsite barge contributions and performing annual hydro-testing as required by US Coast Guard (USCG).
Corrective Action(s) Undertaken	Method 21 monitoring was done by a specialty third party contractor on the barge hatches and identified elevated readings from multiple hatches and also barge drip pan. Notification was made to the barge procurement company to contact the third party barge company and to encourage any appropriate corrective actions to be made. - Completed on 10/19/2021 (Barge 1) and 10/20/2021 (Barge 2) Performed annual USCG required hydro-testing on Berth 1 Benzene piping per written procedures and as expeditiously and safely as possible to reduce emissions – Completed 10/20/2021
Known Results of the Corrective Action(s)	Method 21 monitoring was performed to confirm corrective actions were effective.

ExxonMobil

ExxonMobil Beaumont Chemical Plant
ExxonMobil Chemical Company Fenceline Monitoring Requirements
Civil Action No. 4:17-cv-3302

Sampler Name	BMT-01	BMT-02	BMT-03	BMT-04*	BMT-05	BMT-06	BMT-07	BMT-08	BMT-09	BMT-10	BMT-11	BMT-12	BMT-13	BMT-14	BMT-15**	BMT-16	BMT-17	BMT-18	BMT-19	BMT-20	BMT-21	BMT-22	BMT-23	BMT-24	BMT-25	BMT-26	BMT-27
Sampler Latitude	30.07064	30.07057	30.07503	30.07467	30.07319	30.07097	30.06916	30.06781	30.06996	30.06771	30.06741	30.06382	30.06308	30.06093	30.06444	30.06648	30.06817	30.04488	30.04071	30.06013	30.05423	30.05791	30.06940	30.06283	30.06613	30.06983	30.07175
Sampler Longitude	-94.07121	-94.06706	-94.06433	-94.06887	-94.06621	-94.06791	-94.06608	-94.06799	-94.06434	-94.06172	-94.0627	-94.075471	-94.06612	-94.06812	-94.06226	-94.06421	-94.06665	-94.07366	-94.07361	-94.07561	-94.07570	-94.07544	-94.07548	-94.07558	-94.07628	-94.07565	-94.07576
Date of Retrieval	Benzene Sample Results (ug/m3)																										
12/1/2020	1.9	1.5	2.2	7.6	2.4	1.7	1.4	1.2	0.6	0.7	0.9	0.8	1.2	3.6	0.7	1.1	0.9	1.2	1.3	1.2	1.1	1.1	1.1	1.0	0.9	2.4	1.9
12/15/2020	2.2	2.5	2.7	9.4	6.5	2.5	2.2	1.8	0.6	0.9	0.9	1.1	1.0	1.4	1.1	1.4	1.2	1.3	1.2	1.1	1.1	0.9	1.1	1.1	1.1	1.7	1.7
12/30/2020	3.1	2.4	3.7	18.0	9.3	2.9	1.1	1.1	0.8	0.8	0.8	0.8	1.2	4.4	0.7	0.9	0.8	1.2	1.0	0.9	1.0	0.9	1.0	0.9	1.0	1.4	2.2
1/12/2021	1.6	1.6	3.4	7.1	4.0	2.1	1.5	1.1	0.7	0.8	0.9	0.9	1.0	1.0	0.9	1.0	0.9	1.1	0.9	1.0	0.9	0.9	1.1	0.8	0.9	1.3	1.3
1/26/2021	2.5	1.6	2.8	13.0	6.5	1.8	1.4	1.1	0.9	1.2	1.0	1.0	1.1	0.9	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.8	0.9	0.8	0.8	1.3	1.4
2/9/2021	1.7	1.4	2.2	13.0	4.3	1.8	1.3	1.2	0.8	0.8	0.7	0.7	1.1	0.9	0.8	0.8	0.8	1.0	1.0	1.0	0.9	0.9	1.0	0.8	0.9	1.9	1.3
2/23/2021	2.3	1.7	1.8	3.1	2.2	1.8	1.6	1.4	0.9	0.7	1.0	1.3	3.5	1.8	1.9	1.5	1.2	1.8	1.3	1.5	1.2	1.3	1.2	0.9	1.0	1.9	1.6
3/9/2021	6.5	2.2	4.8	4.9	3.2	0.8	0.6	0.5	0.5	0.5	0.5	0.4	0.8	0.6	0.5	0.8	0.5	0.6	0.6	0.7	0.5	0.9	0.8	0.7	0.6	0.8	1.5
3/23/2021	2.6	2.1	3.2	6.4	2.1	1.6	1.0	0.9	0.5	0.5	0.5	0.6	0.8	0.7	0.5	0.6	0.5	0.6	0.6	0.7	0.5	0.9	0.8	0.7	0.6	0.8	1.5
4/6/2021	2.7	2.6	3.2	11.0*	3.6	1.9	0.8	0.6	0.5	0.6	0.6	0.5	0.6	0.8	0.6	0.6	0.6	0.7	1.0	1.0	0.6	0.9	1.2	0.7	1.0	1.9	1.7
4/20/2021	1.9	1.6	2.4	6.0	5.7	1.9	0.8	0.7	0.5	0.8	0.6	0.6	0.7	0.9	0.7	0.6	0.7	0.8	1.0	0.8	0.7	0.7	0.7	0.7	0.8	1.3	1.3
5/4/2021	2.5	2.0	2.8	10.0	4.0	1.2	0.7	0.6	0.4	0.4	0.4	0.4	0.5	0.6	0.5	0.6	0.4	0.6	0.9	0.7	0.6	0.7	0.7	0.7	0.8	1.4	1.7
5/18/2021	1.9	2.0	2.2	10.0	1.1	0.6	0.6	0.3	0.4	0.5	0.5	0.4	0.5	0.6	0.5	0.8	0.5	0.6	0.9	0.8	0.5	0.6	0.6	0.6	0.6	1.3	1.2
6/1/2021	3.1	2.3	4.6	17.0	1.7	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.4	0.3	0.4	0.4	0.5	1.1	0.8	0.5	0.6	0.6	0.6	0.8	2.1	2.8
6/15/2021	3.2	3.5	6.1	20.0	5.5	1.0	0.7	0.6	0.5	0.6	0.6	0.6	0.6	0.5	0.4	0.6	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.6	0.9	1.0
6/29/2021	2.6	2.6	4.9	14.0	5.0	1.2	1.1	1.1	1.5	3.5	1.2	1.1	0.9	0.8	0.6	0.6	0.6	0.6	1.5	0.8	0.6	0.8	0.9	1.0	1.0	1.8	1.5
7/13/2021	3.0	2.5	4.5	23.0	5.0	1.3	0.7	0.6	0.5	0.5	0.6	0.5	0.6	0.6	0.4	0.6	0.6	0.7	1.2	1.0	0.7	0.8	0.8	0.8	0.8	1.4	1.2
7/27/2021	2.7	2.1	4.0	12.0	7.0	2.1	1.1	0.8	0.7	0.6	0.8	0.8	0.7	0.6	0.5	0.7	0.6	0.6	0.7	0.6	0.5	0.6	0.6	0.5	0.5	0.8	0.7
8/10/2021	2.1	3.5	5.9	8.9	4.4	1.5	1.3	0.9	0.7	0.7	0.6	0.8	0.7	0.7	0.5	0.7	0.7	0.8	1.0	0.6	0.7	0.9	0.9	0.8	0.9	1.3	0.7
8/24/2021	3.2	6.6	4.9	13.0	2.3	0.9	1.4	0.6	0.6	0.7	0.7	0.7	0.6	0.7	0.6	0.7	0.5	0.6	0.9	1.0	0.7	1.0	0.8	0.7	0.9	1.0	0.8
9/7/2021	2.1	1.7	3.8	6.2	7.1	2.5	1.5	1.1	0.9	1.0	0.9	0.7	1.1	1.0	0.7	1.1	0.9	0.9	1.3	1.1	1.1	1.0	1.1	0.9	1.0	1.8	1.5
9/21/2021	3.1	3.0	1.9	14.0	24.0	7.8	2.0	1.9	0.7	1.2	1.1	1.1	1.0	1.2	0.8	0.9	0.8	1.0	1.3	1.1	0.8	0.8	1.0	0.9	1.1	2.6	1.3
10/5/2021	11.5	23.0	1.7	12.0	3.4	1.0	1.0	0.7	0.6	0.6	0.6	0.6	0.7	1.2	0.9	1.0	0.8	1.0	1.0	1.1	0.8	0.7	0.9	1.0	0.8	1.5	1.8
10/19/2021	2.3	4.7	3.4	10.0	1.9	0.9	1.0	0.8	0.6	0.8	0.6	0.8	0.9	1.0	0.8	1.0	0.8	0.7	1.2	0.9	0.8	0.8	0.8	0.8	0.8	1.1	1.0
11/2/2021	1.9	1.5	2.3	9.7	2.2	1.3	1.0	1.4	0.8	0.7	0.9	0.7	0.9	0.8	0.8	0.7	0.6	1.0	0.8	0.8	0.9	0.8	0.7	0.7	0.7	0.9	1.2
11/16/2021	8.9	2.1	1.4	4.6	1.9	0.9	0.9	0.8	0.6	0.7	0.7	0.7	0.8	1.2	1.1	1.1	0.7	1.0	1.2	1.2	0.9	0.9	1.1	0.9	1.0	1.6	1.3
11/30/2021	2.2	1.9	2.2	9.5	3.9	1.1	1.0	0.8	0.7	0.7	0.6	0.7	0.8	0.9	0.9	0.8	0.8	0.9	1.2	1.1	0.8	0.9	1.0	0.9	0.9	1.5	1.4
12/14/2021	2.7	2.8	3.3	7.7	1.8	0.7	0.7	0.7	0.6	0.7	0.5	0.6	0.7	0.8	0.6	1.1	0.7	0.7	1.0	0.9	0.8	1.0	0.8	0.7	1.0	1.6	1.3
12/28/2021	2.8	2.2	2.8	4.4	1.4	0.6	0.6	0.5	0.5	0.5	0.5	0.4	0.5	0.7	0.6	0.8	0.6	0.9	0.8	0.7	0.6	0.6	0.8	0.7	0.8	0.9	1.3
1/11/2022	2.3	1.9	2.6	3.8	4.0	1.1	0.8	0.7	0.6	0.6	0.6	0.6	0.9	0.9	0.7	0.9	0.7	1.0	0.9	0.9	0.7	0.6	0.8	0.7	0.8	1.3	1.0
1/25/2022	4.8	1.5	5.5	9.1	4.1	1.6	1.1	1.0	0.8	0.7	0.9	0.9	1.1	1.2	1.0	1.2	1.0	1.4	1.1	1.1	1.0	1.0	1.1	1.0	1.1	1.4	1.0
2/8/2022	29.0	1.3	2.1	3.1	3.2	1.2	1.2	0.9	0.7	0.7	0.8	0.8	1.3	1.4	0.9	1.1	1.0	1.3	1.2	1.2	1.0	1.0	1.0	1.0	1.0	2.0	1.3
	Annual Average ΔC***	11.3																									

* Voluntary supplemental air monitoring equipment purchased by ExxonMobil at BMT-04 indicate Third Party marine vessel emissions contributed to 29.7% of 2/8/2022 sample result.

** BMT-15 has been temporarily re-located to 30.06432, -94.06226 for construction work in the area. Once construction work is complete, BMT-15 will be moved back to its original location, 30.06644, -94.06226.

* BMT-04 Field error- Sample station temporarily re-located due to construction work in the area between 3/26/21 and 4/7/21.

***Annual average Δc is above the action level based on previous sample results. Corrective action plan prepared and posted to the website, and will be updated as appropriate.

Date Published: 2/20/2022

SECTION 11 ANNUAL EMISSION DATA

Consent Decree Paragraph 68

In the Semi Annual Report that is submitted on February 28 of each year, the Defendants must provide, for each Covered Flare, for the prior calendar year, the amount of emissions of the following compounds (in tons per year): VOCs, HAPs, NOx, CO2, methane, and ethane.

Status: As of the date of this Semi-Annual Report, the annual emissions are reflected in Table 11.1 below.

TABLE 11.1 2021 Annual Emissions Data

Covered Flare	Emissions (tons per year)					
	VOCs	HAPs	NO_x	CO_2	Methane	Ethane
LP East and HP West	53.9	10.3	9.9	2,248.0	20.9	4.9
CS	1.5	<1	6.9	11,372.6	32.0	6.6
Paraxylene	6.8	<1	14.1	23,538.7	68.2	4.5

SECTION 12 ANY ADDITIONAL NON-COMPLIANCE

Consent Decree Paragraph 69
Each Semi-Annual Report must also include a description of any non-compliance with the requirements of this Consent Decree not otherwise identified by Paragraph 66 along with an explanation of the violation's likely cause and of the remedial steps taken, or to be taken, to prevent or minimize such violation. If the cause of a violation cannot be fully explained at the time the report is due, the Defendants must so state in the report. In such a case, the Defendants must investigate the cause of the violation and then submit an amendment to the report, including a full explanation of the cause of the violation, within 30 Days of the Day the Defendants become aware of the cause of the violation. Nothing in this Paragraph or the following Paragraph relieves the Defendants of their obligation to provide the notice required by Section XI (Force Majeure).

TABLE 12.1 Additional Non-Compliance

Covered Flare	Requirement Paragraph	Start Date/ Time	End Date/ Time	Cause	Corrective Action
None	None	None	None	None	None